San Fernando Valley Superfund Sites Update

September 1997

This fact sheet describes recent progress in the cleanup of groundwater contamination in the San Fernando Valley Basin. The U.S. Environmental Protection Agency (EPA) continues to address the investigation and cleanup problem using a "big picture" approach that looks at the groundwater contamination of the entire basin, while focusing on individual cleanup areas called operable units (OUs). Through the Superfund program, EPA has developed groundwater cleanup projects for four OUs: North Hollywood, Burbank, Glendale North, and Glendale South (see Figure 1). This update describes the progress made at each of the OUs, as well as advancement achieved through EPA's enforcement program and economic development initiatives.

U.S. EPA Efforts Minimize Impacts on the Valley's Economy

Working with state and local government, EPA has achieved remarkable progress toward containment and cleanup of groundwater contamination in the San Fernando Valley Basin. These efforts have been accomplished in ways that achieve Superfund program goals while minimizing impacts on the economy in the San Fernando Valley. Several of these efforts are described in this fact sheet.

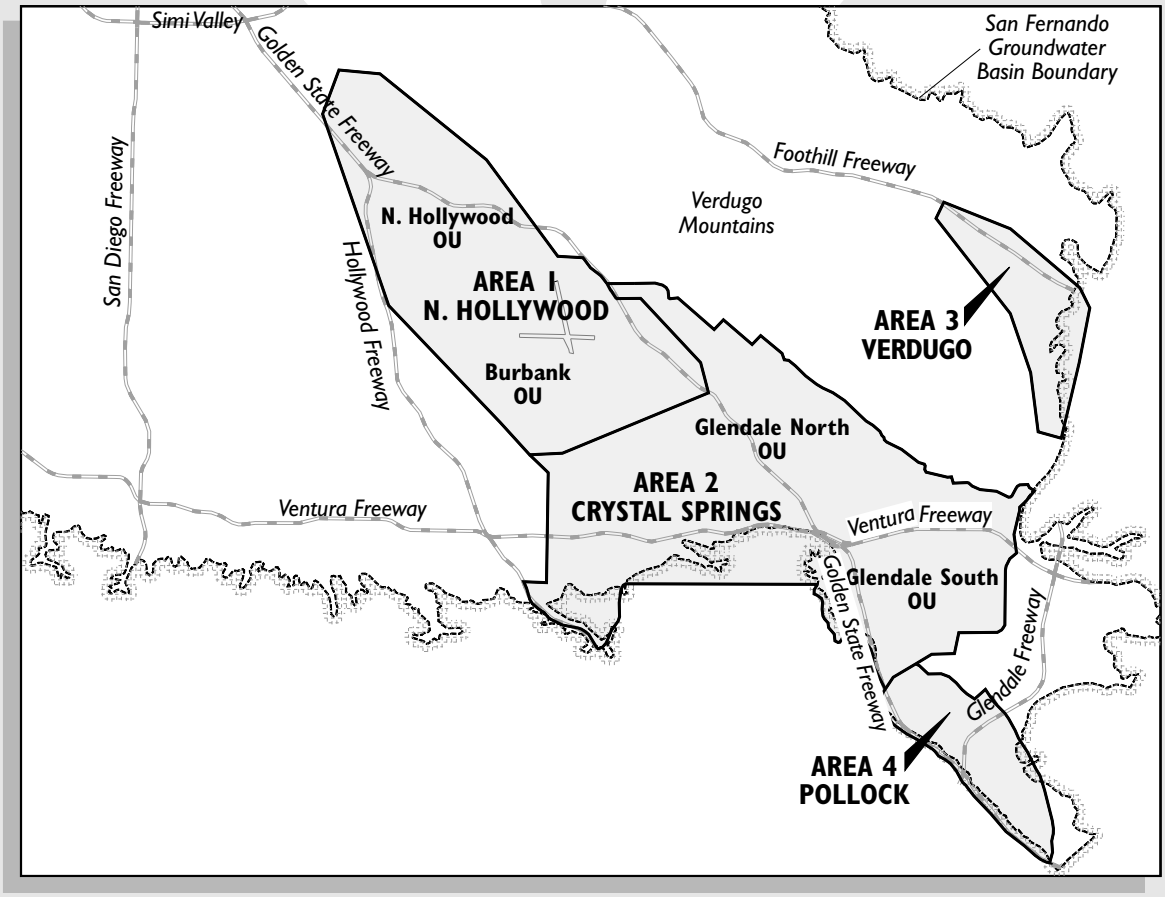

Figure 1
Site map

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Site History

The San Fernando Superfund Sites are located in the eastern portion of the San Fernando Valley between the Santa Monica and San Gabriel Mountains. The San Fernando Valley Groundwater Basin is an important source of drinking water for the Los Angeles metropolitan area, the Cities of Glendale, Burbank, and San Fernando, and the unincorporated area of La Crescenta.

In the early 1980s, trichloroethylene (TCE) and perchloroethylene (PCE) were detected in numerous drinking water production wells above the maximum safe level of 5 parts per billion. As a result of the widespread contamination, state and local agencies acted to provide alternative drinking water supplies, primarily by purchasing imported water from the Metropolitan Water District (MWD). In 1986, EPA included four sites (see Figure 1) in the San Fernando Valley on the National Priority List (NPL), and began coordinating efforts to investigate and clean up the regional groundwater contamination.

EPA Cleared 2,500 Companies from Responsibility in Cleanup Efforts

From August 1995 to December 1996, EPA and the California Regional Water Quality Control Board sent "No Further Action" letters to 2,500 businesses, notifying them that the agencies did not intend to hold them responsible for groundwater contamination of the San Fernando Valley Basin. These facilities were investigated by EPA and the Regional Board because their past or current operations were thought to involve the use of solvents that were identified in the local groundwater. After conducting inspections of the facilities and performing a thorough review of each facility's records on the use, storage, and disposal of hazardous materials, EPA and the Regional Board determined that the companies in question used little or no solvents, and had no evidence of contributing to solvent contamination based on soil and groundwater testing results.

EPA and the Regional Board are continuing to evaluate the responsibilities of other businesses that have been identified and will send out additional "No Further Action" letters if warranted.

Cost Allocation Aimed at Fairness

In 1996, a number of potentially responsible parties (PRPs) in the Burbank area approached EPA seeking protection from liability under the Superfund program. EPA determined that these companies caused little if any contamination of the groundwater. EPA reached agreements with these companies, giving them protection from liability for the Burbank area, in exchange for reimbursement of a small portion of EPA's investigation costs.

Dreamworks Development Project

In the Spring of 1996, Dreamworks Studios purchased a parcel of land known as the Crystal Springs Yard in the City of Glendale as a location for their animation studios. At the time of the purchase, the Glendale PRPs had planned to site groundwater extraction wells and a treatment plant at the same location, and had completed substantial design work for the Crystal Springs Yard. Through negotiations between the City of Glendale, Dreamworks Studios, the PRPs, and EPA, an agreement was reached that required the City to reimburse the PRPs for $1.6 million in additional costs to relocate and re-design the treatment plant. The agreement also allowed three of the extraction wells to remain on the Dreamworks Studios property, a critical location for effective capture and containment of contaminants in the groundwater plume. Cooperation of all parties resulted in a win-win situation that will provide a significant economic development opportunity in Glendale and will create jobs, minimize cost impacts on the PRPs, and ensure that the effectiveness of EPA's cleanup project is not compromised.

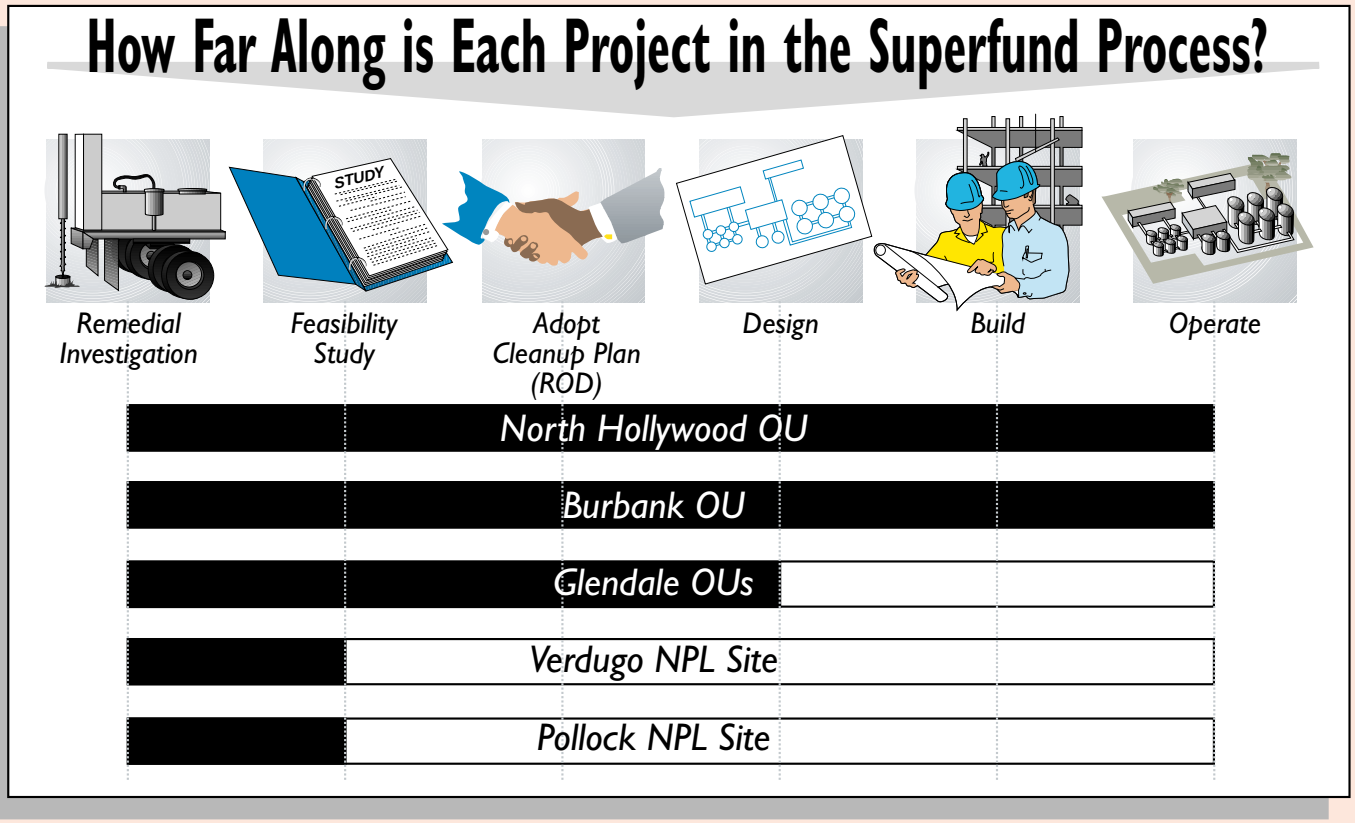


Figure 2
Status of each project area in the Superfund process

Changes in Technical Approach Result in Cost Savings

The Burbank OU was originally planned to be constructed in three phases, with the final phase adding 3,000 gallons per minute (gpm) of groundwater to the extraction and treatment capacity of the facility for a total of 12,000 gpm extraction capacity. This final phase has been eliminated as part of the negotiations with the PRPs. Technical analysis showed that extracting 9,000 gpm would achieve hydraulic control of the groundwater plume and would remove the contamination as effectively as extracting 12,000 gpm. Eliminating Phase III will save approximately $50 million in cleanup costs. EPA recently reached agreement with close to 100 parties to fund and perform long-term operation and maintenance of the Burbank OU extraction and treatment facilities.

Update on the Operable Units

Volatile organic compounds (VOCs) including trichloroethylene (TCE) and perchloroethylene (PCE) have been detected throughout the San Fernando Valley groundwater basin. The primary contaminants of concern are TCE and PCE which have been used in a variety of industries for activities such as metal plating, machinery degreasing, and dry cleaning. Nitrate, an inorganic contaminant, has also been detected in the groundwater. Nitrate contamination may be the result of past agricultural practices and/or septic system releases. The following sections discuss the status of cleanup activities in each OU. Figure 2 shows the progress of each OU in the Superfund process.

Area 1 - North Hollywood

North Hollywood OU

Since 1989, the Los Angeles Department of Water and Power (LADWP), with EPA funding and oversight, has been operating a 2,000 gpm groundwater extraction and treatment facility to remove VOCs and prevent the migration of contamination within the North Hollywood OU. VOCs are compounds that evaporate readily at room temperature. The water is treated for VOCs using air stripping and vapor-phase granular activated carbon and distributed to the public through LADWP's North Hollywood Pumping Station.

EPA settled with nine PRPs for most of the costs incurred in the investigation, construction, and operation of the North Hollywood OU. The funds recovered will support operating the treatment plant through 2004. An initial settlement approved by the Court in August 1996 recovered $4.75 million. Another settlement approved May 14, 1997 has recovered an additional $4.82 million.

Burbank OU

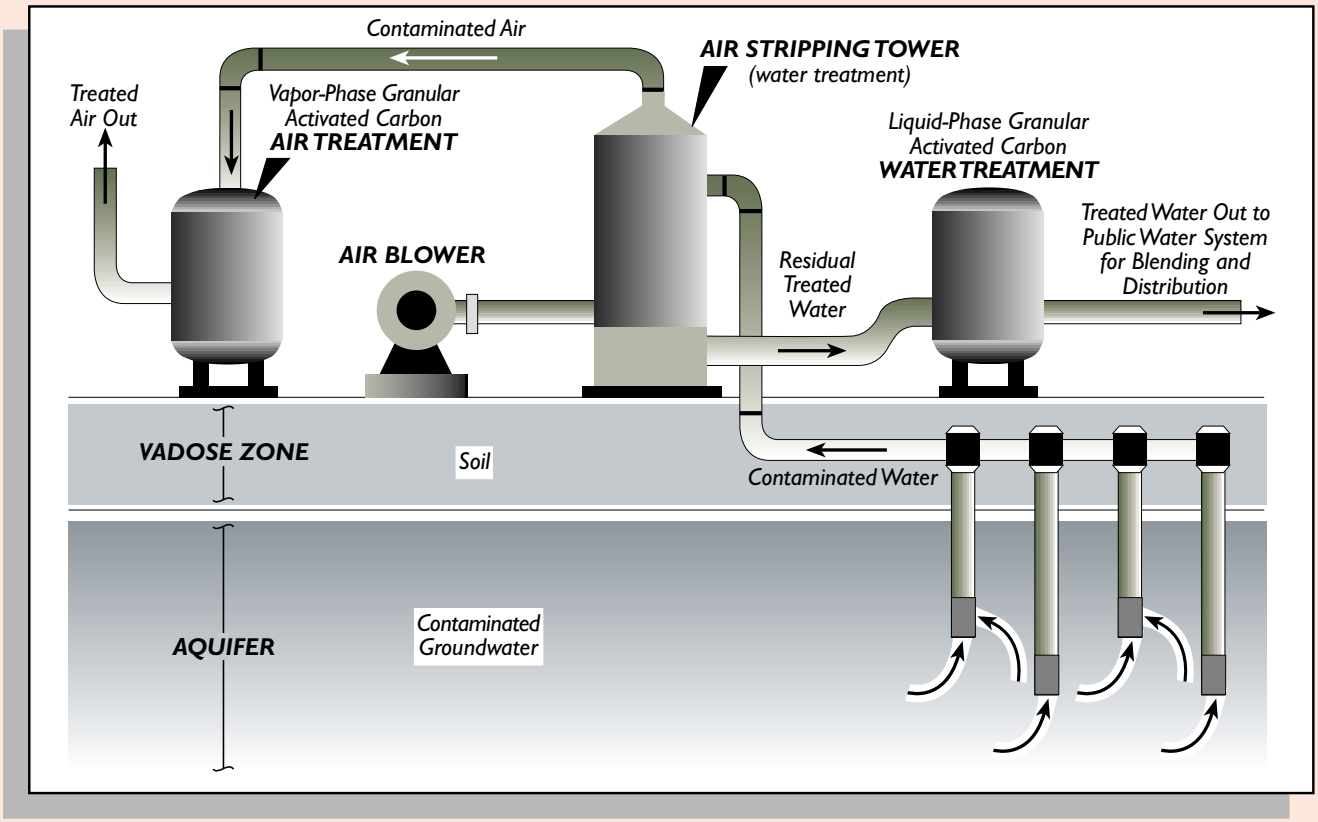
The Burbank OU has been operational since January 1996. This OU currently extracts and treats 6,000 gpm of contaminated groundwater; in March 1998, it will treat 9,000 gpm. The groundwater is treated by air stripping, liquid-phase granular activated carbon, and vapor-phase granular activated carbon to remove VOCs. Figure 3 is a schematic diagram of the type of groundwater extraction and treatment system used for the Burbank OU. The treated water, which meets all Federal and state drinking water standards except for nitrates, is then blended with water from the Metropolitan Water District (MWD) to meet drinking water standards for nitrates and is distributed to the City of Burbank's public water supply.

Area 2 - Crystal Springs

Glendale OUs

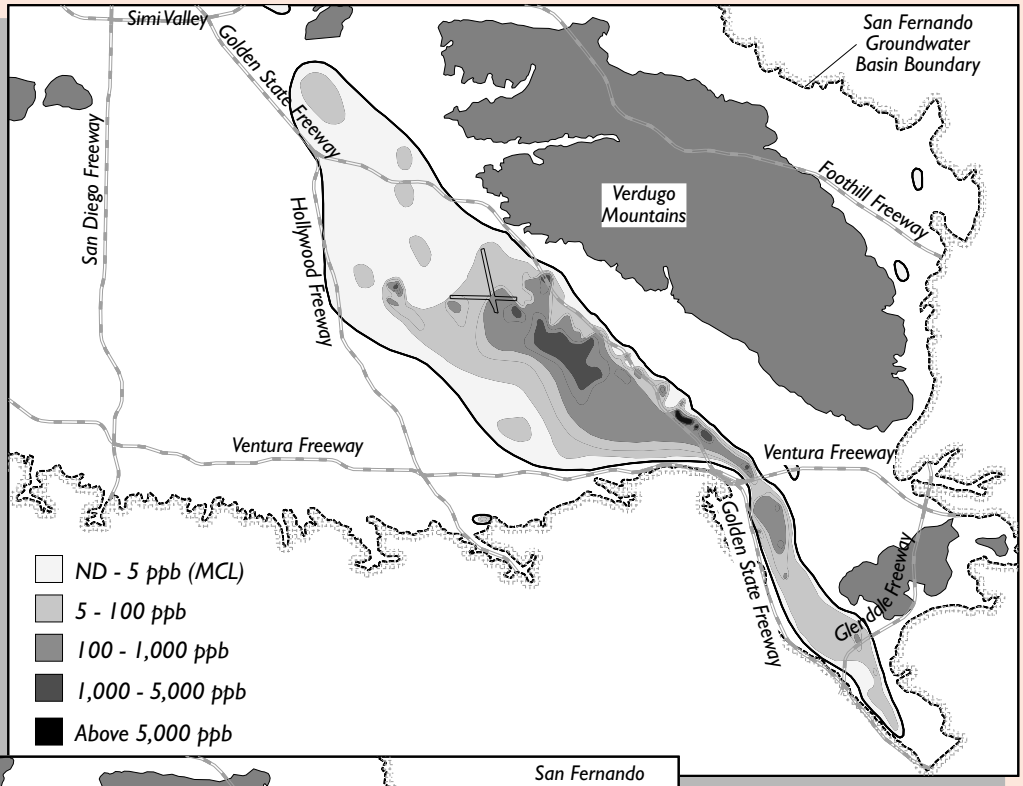
In 1989, EPA found elevated concentrations of VOCs in the groundwater in the Glendale area of the San Fernando Valley. Two plumes of groundwater contamination were discovered. These are

Figure 3
Typical Groundwater Extraction and Treatment System



referred to as the Glendale North Plume and the Glendale South Plume. On June 18th, 1993, after receiving and considering public comments, EPA signed Records of Decision (RODs) for both the Glendale North and South OUs. Under the combined remedy, groundwater will be extracted at a rate of 5,000 gpm and treated for VOCs using air stripping, liquid-phase granular activated carbon, and vapor phase granulated activated carbon. The treated water will meet all drinking water standards except for nitrates. It will be blended with MWD water to meet the nitrate

Figure 4
TCE Plume Map



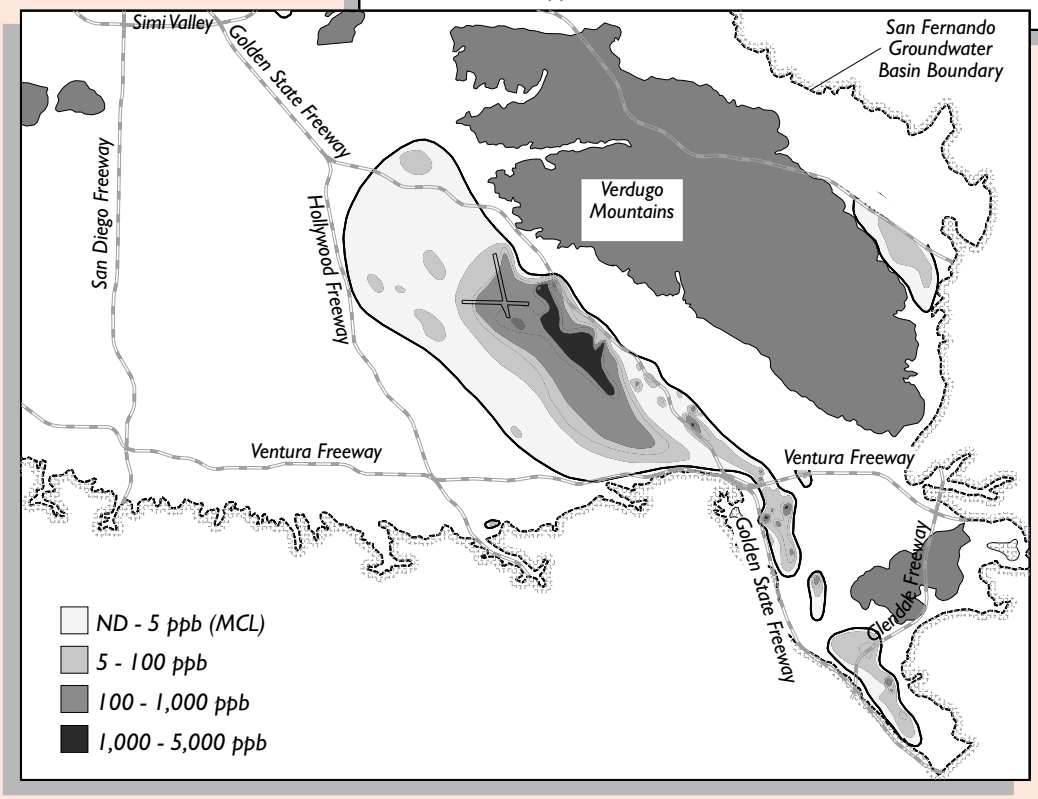


Figure 5
PCE Plume Map

standard and will be conveyed to the City of Glendale for distribution through its public water supply system.

In 1994, EPA signed an Administrative Order on Consent (AOC) with 25 PRPs to conduct the remedial design phase of the project. In November 1996, the PRPs completed the remedial design. Because EPA was unable to reach agreement for a Consent Decree with the PRPs to perform the remedial action phase, it issued a Unilateral Administrative Order to the 25 PRPs who had signed the AOC and with additional PRPs to begin preconstruction activities. EPA intends to continue to pursue a Consent Decree with PRPs at the Glendale OUs to voluntarily complete the remedial action and perform operation and maintenance at the site. If a Consent Decree is not negotiated, the work will continue under a Unilateral Administrative Order.

Area 3
Verdugo Study Area

The Verdugo Study Area includes the groundwater in and around several wellfields located in the Verdugo Basin. To date, PCE has been the only VOC detected at or above its maximum contaminant level of 5 parts per billion (ppb). EPA continues to monitor the groundwater quality of the Verdugo Basin through its basinwide monitoring program.

Area 4
Pollock Study Area

The Pollock Study Area is located at the southern portion of the San Fernando Valley Basin near LADWP's Pollock Wellfield. In 1994, EPA completed a site assessment of this area and determined that establishing an OU in the Pollock area was not necessary because LADWP planned to conduct a wellhead treatment project in the Pollock Wellfield.

In 1998, LADWP will reactivate two wells in the Pollock Wellfield to extract 3,000 gpm of groundwater. The water will be treated to drinking water standards and conveyed to LADWP's public water supply. Pumping in the Pollock Wellfield is expected to capture nearly all of the contamination upgradient of the wellfield and prevent migration of any contaminated groundwater into the Los Angeles River. EPA plans to evaluate the effectiveness of the Pollock Wellfield project as part of the Basinwide Feasibility Study and ROD.

Basinwide Activities

While conducting the OU remedies, EPA has also conducted basinwide investigations which ultimately will lead to a basinwide ROD. Since completion of the remedial investigation for the San Fernando Valley Groundwater Basin in 1992, EPA has continued to monitor groundwater contamination through its Basinwide Monitoring Program. The monitoring program consists of quarterly sampling of the 500 groundwater wells located throughout the eastern portion of the valley. Data generated from these sampling events are used to map the extent of TCE and PCE groundwater contamination (see Figures 4 and 5 on the previous page).

Work continues on the Basinwide Feasibility Study (FS), after a temporary slow-down in 1996 due to resource and budget constraints related to the government shutdown. Preliminary components of the FS include: 1) an evaluation of the combined effectiveness of the individual interim remedies in the North Hollywood, Burbank, and Glendale North and South OUs, 2) an analysis of additional remedial alternatives, and 3) a review of potential vadose zone (soil above the groundwater table) transport, remedial options, and methods for establishing vadose zone cleanup objectives. In 1997, EPA plans to update the Basinwide groundwater model by incorporating new information on groundwater management practices in the valley and the most current scientific knowledge of the factors affecting groundwater flow and contaminant transport. The updated groundwater model will be used in the Basinwide FS to estimate the effectiveness of the interim remedies in containing the contaminated groundwater and removing contaminant mass from the aquifer system, and to decide what further actions may be needed. Based on these studies, EPA will issue a basinwide ROD documenting its decision.

Who's Involved?

The San Fernando Valley Superfund project is large and complex, requiring the cooperation of many agencies. EPA is coordinating efforts to address groundwater contamination in the San Fernando Valley Basin. The following agencies are participating in this effort.

EPA: The U.S. Environmental Protection Agency has overall responsibility for cleanup and enforcement efforts at the San Fernando Valley Superfund Sites. EPA is also responsible for community involvement activities for the site. Contact people at EPA are:

- *Lance Richman, North Hollywood OU and Basinwide Activities, (415) 744-2249*
- *Diane Strassmaier, Burbank OU, (415) 744-2157*
- *Duane James, Glendale OUs, (415) 744-2253*
- *Jacqueline Lane, Community Involvement Coordinator, (800) 231-3075*

Cal-EPA: The California EPA, through its Department of Toxic Substances Control, enforces state hazardous waste cleanup requirements and is involved in cleanup of sites around and within the San Fernando Valley. The contact person at Cal-EPA is:

- *Hamid Saebfar, (818) 551-2876*

Regional Board: The Regional Water Quality Control Board is responsible for protecting the surface and groundwater for the State of California. The Los Angeles Region of the Regional Board is working through a cooperative agreement with EPA to investigate potential sources of groundwater contamination in the San Fernando Valley. The contact person at the Regional Board is:

- *Hank Yacoub, (213) 266-7522*

LADWP: The Los Angeles Department of Water and Power has overall responsibility for water supply in the City of Los Angeles. The LADWP is currently supporting EPA enforcement and cost recovery actions, coordinating and consulting with EPA about the Pollock Study Area and basinwide water management issues, and operating the North Hollywood OU treatment facility. The contact person at LADWP is:

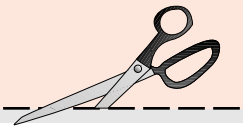
- *Ernest Wong, (213) 367-0847*

Cities of Burbank and Glendale: The Cities of Burbank and Glendale provide drinking water to their residents through local municipal utilities. Both cities have been closely involved in the Superfund studies. The contact people are:

- *Peter Frankel (818) 238-3500 at the City of Burbank*
- *Don Froelich (818) 548-2137 at the City of Glendale*

ULARA Watermaster: The Upper Los Angeles River Area Watermaster, appointed by the Los Angeles Superior Court, oversees and documents all actions that affect groundwater supply in the basin. The Watermaster is working with EPA, the Regional Board, and water purveyors to address groundwater management issues in the San Fernando Valley. The Watermaster contact is:

- *Mel Blevins, (212) 367-1020*



Mailing List Coupon

If you did not receive this fact sheet by mail and would like to be included on the mailing list for the San Fernando Valley Superfund project, please fill out this coupon and return it to the EPA Community Involvement Office, 75 Hawthorne Street (SFD-3), San Francisco, CA 94105.

Name: _____

Address: _____

Telephone: _____

Affiliation (if any): _____

The Superfund Law

The Superfund law is one of the most effective means of resolving the nation's hazardous waste problems because of several unique features. The law:

- *prohibits lawsuits aimed at delaying or stopping cleanup*
- *assesses strict liability against polluters to ensure that they pay for cleanup activities*
- *creates a trust fund that can be used if polluters fail to carry out their cleanup responsibilities*
- *creates numerous opportunities for public involvement*
- *allows the agencies to tailor cleanup projects to meet local water supply goals or other local needs.*

San Fernando Valley Superfund Sites Information Repositories

Copies of technical documents relating to the San Fernando Valley Superfund program are available for review at the locations listed below.

City of Burbank Public Library
110 North Glenoaks Boulevard
Burbank, CA 91502
(818) 238-5580
Contact: Andrea Anzalone
Hours: M-Th 9:30 am - 9:00 pm
F 9:30 am - 6:00 pm
Sat 10:00 am - 6:00 pm

City of Glendale Public Library
222 East Harvard Street
Glendale, CA 91205
(818) 548-2021
Contact: Lois Brown
Hours: M-Th 10:00 am - 8:55 pm
F-Sat 10:00 am - 5:55 pm

Los Angeles Department of Water and Power
(LADWP) Library
111 North Hope Street, Room 518
Los Angeles, CA 90012
(213) 367-1994
Contact: Joyce Purcell
Hours: M-F 7:30 am - 5:50 pm

The University Research Library/U.C.L.A.
Public Affairs Service
405 Hilgard Avenue
Los Angeles, CA 90024
(310) 825-1088
Contact: Barbara Silvernail
Hours: M-F 10:00 am - 7:00 pm
Sat 1:00 pm - 5:00 pm

For More Information about the specific cleanup efforts, contact:

Lance Richman
North Hollywood & Basinwide OUs
U.S. EPA, Region IX
75 Hawthorne Street (SFD-7-4)
San Francisco, CA 94105
(415) 744-2249
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Jacqueline Lane
Community Involvement Coordinator
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San Francisco, CA 94105
(415) 744-2267 or (800) 231-3075
FAX: (415) 744-1796

EPA

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